AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below. The language being added is underlined ("__") and the language being deleted contains a strikethrough ("—").

LISTING OF CLAIMS

1. (Currently Amended) A transmitter that uses a dual packet configuration for wireless communication, comprising:

a first modulator that modulates a first portion of each packet solely according to a serial modulation; and

a second modulator that modulates a second portion of each packet solely according to a parallel modulation, wherein the parallel modulation comprises orthogonal frequency division multiplexing (OFDM), and wherein the second portion further comprises:

an OFDM synchronization pattern;

an OFDM signal symbol;

an OFDM payload;

the OFDM signal symbol including a data rate section and a data count section.

2. (Canceled)

3. (Previously Presented) The transmitter of claim 1, wherein the first portion includes a preamble and a header.

4. (Previously Presented) The transmitter of claim 3, wherein the preamble comprises a long preamble.

5. (Previously Presented) The transmitter of claim 3, wherein the preamble comprises a short preamble.

6. (Previously Presented) The transmitter of claim 3, the header including an OFDM mode bit.

7. (Previously Presented) The transmitter of claim 6, the header further including a length field indicating the duration the second portion.

8. (Canceled)

9. (Currently Amended) The transmitter of claim [[8]]1, further comprising:

the OFDM signal symbol including a data rate section and a data count section.

10. (Previously Presented) The transmitter of claim 1, further comprising:

the first portion based on a first clock fundamental; and

the second portion based on a second clock fundamental.

11. (Previously Presented) The transmitter of claim 10, wherein the first clock fundamental is approximately 22 Megahertz (MHz) and the second clock fundamental is

approximately 20 MHz.

12. (Previously Presented) The transmitter of claim 1, wherein the first and second portions are based on a single clock fundamental.

13. (Previously Presented) The transmitter of claim 12, the second portion including OFDM symbols wherein each OFDM symbol includes a guard interval with a standard number of samples for OFDM.

14. (Previously Presented) The transmitter of claim 12, the second portion including OFDM symbols wherein each OFDM symbol includes a guard interval with an increased number of samples.

15. (Previously Presented) The transmitter of claim 12, the second portion including OFDM symbols wherein each OFDM symbol includes a reduced number of frequency subcarriers.

16. (Previously Presented) The transmitter of claim 15, wherein each OFDM symbol includes 48 frequency subcarriers.

17. (Previously Presented) The transmitter of claim 15, wherein each of the frequency subcarriers is a data subcarrier.

18. (Previously Presented) The transmitter of claim 15, wherein the frequency subcarriers include at least one pilot tone.

19. (Previously Presented) The transmitter of claim 15, wherein
each of the frequency subcarriers initially comprises a data subcarrier; and
the second modulator discards a subset of the data subcarriers and replaces the discarded data subcarriers with a corresponding number of pilot tones for transmission.

20. (Currently Amended) A wireless communication device that is configured to communicate using a dual packet configuration, comprising:

a transmitter configured to transmit packets with a dual configuration;

a receiver configured to receive packets with a dual configuration, wherein the transmitter and receiver are each capable of communicating in a super short mode in which only the second portion modulated according to the parallel modulation is utilized; and

the dual packet configuration including first and second portions, the first portion modulated solely according to a serial modulation method and the second portion modulated according to a parallel modulation method, wherein the parallel modulation method is orthogonal frequency division multiplexing (OFDM).

21. (Canceled)

22. (Previously Presented) The wireless communication device of claim 20, the first portion including a header with an OFDM mode bit.

23. (Original) The wireless communication device of claim 22, the header further including a length field indicating the duration of the second portion.

24. (Previously Presented) The wireless communication device of claim 20, further comprising:

a first clock source based on a first clock fundamental, the first portion based on the first clock fundamental; and

a second clock source based on a second clock fundamental, the second portion based on the second clock fundamental.

25. (Original) The wireless communication device of claim 24, wherein the first clock fundamental is approximately 22 Megahertz (MHz) and the second clock fundamental is approximately 20 MHz.

26. (Previously Presented) The wireless communication device of claim 20, further comprising:

a clock source based on a clock fundamental, the first and second portions based on the clock fundamental.

27. (Original) The wireless communication device of claim 26, wherein the second portion includes OFDM symbols, each OFDM symbol including a guard interval with a standard number of samples for OFDM.

28. (Original) The wireless communication device of claim 26, wherein the second portion includes OFDM symbols, each OFDM symbol including a guard interval with an increased number of samples.

29. (Original) The wireless communication device of claim 26, wherein the second portion includes OFDM symbols, each OFDM symbol including a reduced number of frequency subcarriers.

30. (Original) The wireless communication device of claim 29, wherein each of the frequency subcarriers is a data subcarrier.

31. (Original) The wireless communication device of claim 29, wherein the frequency subcarriers include at least one pilot tone.

32. (Original) The wireless communication device of claim 29, further comprising:

the transmitter discarding at least one of the data subcarriers and replacing the discarded data subcarriers with a corresponding number of pilot tones; and

the receiver regenerating the discarded data subcarriers based on received data subcarriers.

33. (Canceled)

34. (Previously Presented) The wireless communication device of claim 20, wherein the transmitter and receiver are each capable of communicating in a standard mode in which the second portion is modulated according to the serial modulation.

35. (Original) The wireless communication device of claim 20, further comprising:

the transmitter and receiver each configured to operate in the 2.4 gigahertz frequency band.

36. (Currently Amended) A method of wireless communication using a dual packet configuration, comprising:

modulating a first portion of each packet solely according to a serial modulation; [[and]]

modulating a second portion of each packet according to a parallel modulation, wherein modulating a second portion of each packet comprises modulating the second portion according to orthogonal frequency division multiplexing (OFDM); and

switching to a super short mode of operation in which only the second portion modulated according to the parallel modulation is utilized for communications.

37. (Canceled)

38. (Previously Presented) The method of claim 36, further comprising:

including a header with an OFDM mode bit in the first portion; and

including a length field in the header indicating a duration of the second portion.

39. (Previously Presented) The method of claim 36, further comprising:

the modulating a first portion of each packet comprising modulating based on a first clock fundamental; and

the modulating a second portion of each packet comprising modulating based on a second clock fundamental.

40. (Previously Presented) The method of claim 36, wherein the modulating first and second portions of each packet comprises modulating based on a single clock fundamental.

41. (Original) The method of claim 40, wherein the modulating the second portion of each packet comprises including a guard interval with a standard number of samples for each OFDM symbol.

42. (Original) The method of claim 40, wherein the modulating the second portion of each packet comprises including a guard interval with an increased number of samples for each OFDM symbol.

43. (Original) The method of claim 40, wherein the modulating the second portion of each packet comprises including a reduced number of frequency subcarriers for each OFDM symbol.

44. (Original) The method of claim 43, further comprising:

discarding a subset of the data subcarriers;

replacing the discarded data subcarriers with a corresponding number of pilot tones for transmission; and

regenerating the discarded data subcarriers based on received data.

45. (Canceled)

46. (Original) The method of claim 36, further comprising:

switching to a standard mode of operation in which the second portion is modulated according to the serial modulation.

47. (Previously Presented) The transmitter according to claim 1, wherein the serial modulation comprises direct sequence spread spectrum (DSSS).

48. (Previously Presented) The wireless communication device according to claim 20, wherein the serial modulation is direct sequence spread spectrum (DSSS).

49. (Previously Presented) The method of claim 36, wherein the modulating a first portion of each packet comprises modulating according to direct sequence spread spectrum (DSSS).